# Capital Expenditure and Future Firm Performance: Evidence from Firms Listed on the Stock Exchange of Thailand

#### <sup>1</sup>Wanlapa Thomya, <sup>2</sup>Napaporn Likitwongkajon, <sup>3</sup> Grid Rangsungnoen\*

 Faculty of Interdisciplinary Studies, Nong Khai Campus, KhonKaen University, Thailand
 Faculty of Business Administration and Accountancy, KhonKaen University, KhonKaen, Thailand.
 Corresponding author, Faculty of Interdisciplinary Studies, Nong Khai Campus, KhonKaen University

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Abstract: Purpose – Capital expenditure reflects a company's investment in long-term assets expected to generate value for shareholders over time. Such expenses mostly expect to improve a company's future performance. This research aims to explore the relationship between capital expenditure and future firm performance.

**Design/methodology/approach** –A sample (n=475) of registered companies listed on the stock exchange of Thai (SET) from 2000-2016 was selected. The time period selected for this research allows the researchers to analyze the relationship during the period of economic growth and stability. Secondary data was harvested from the Thomson Reuters DataStream database.

**Findings** – A regression analysis showed a negative relationship between capital expenditure and future firm performance, as measured by return on assets (ROA) and dividends. Notably, this negative relationship was found to be statistically significant across the board, first for all companies and second for a unique subset of larger companies.

**Originality/value -** Such findings go against general expectations. Subsequently, the study has implications for general practice, investment, and the academe.In particular, it sheds light on the potential impact of agency on investment expenses. Practically, registered SET companies can use this insight to make informed investment decisions; investors to make investment decisions, and lenders to make lending decisions. Overall, this research provides value for various stakeholders across financial exchanges.

Keywords: Capital expenditure, future firm performance, stock exchange

#### Introduction

Business operations aim to create value for the company and maximize wealth for shareholders. Companies often acquire long-term assets to use in their operations, expecting to benefit from future economic returns generated by such investments. These returns can come from increased productivity, reduced operational costs, and improved profitability, which can help the company achieve its goals (Echevarria, 1998; Uwah & Asuquo, 2016). A company may acquire or improve existing long-term assets to increase its value. The asset-based investment decision premises an expected return on investment compared to the cost of the investment. If the expected return is less than the cost of the investment, the company will reject the investment. However, if the expected return is greater than the cost of the investment, the company will accept the investment and record the cost of the investment as an expense for the purposes of investment(Uwah, 2019; Uwah & Asuquo, 2016). Therefore, when a company incurs expenses for investment purposes, it is expected to improve its operations and result in higher stock returns.

Previous research has studied the relationship between capital expenditure and stock prices (Mcconnell &

Muscarella, 1985; Tsay & Hung, 1994)and stock return(Akbar et al., 2008; Chan et al., 1995; Chung et al., 1998; Kim & Lee, 2018; Lev & Thiagarajan, 1993).Those studies indicate that the companies with the highest capital expenditure (Mcconnell & Muscarella, 1985), investment opportunity, level of technology(Chung et al., 1998),and an expansionary business cycle(Kim & Lee, 2018)affects the relationship.Companies with solid investment opportunities, advanced technology, and favorable business cycles are more likely to experience higher stock returns despite higher investment expenses.

In addition, specific studies have considered the relationship between capital expenditure and business performance, mostly in developed countries. Those studies, however, produced inconsistent results. They are inconclusive because some found a positive relationship between capital expenditure and business performance(Echevarria, 1998; Jiang et al., 2006; Kim, 2001; Uwah, 2019), while others found no relationship or a negative relationship(Salimah & Herliansyah, 2019). This lack of consistency suggests that the relationship between capital expenditure and business performance may be complex and may vary depending on various factors, such as the industry, the level of technology, and the business cycle.

In attempting to demystify the complexity and thus close (better understand) the consistency gaps, this research explores the relationship between capital expenditure and the future performance of businesses in Southeastern Asia. It specifically focuses on publicly traded companies on the stock exchangeof Thailand (SET), a growing exchange in Southeast Asia. It seeks to provide new insights into the relationship withspecific differences from Western countries. It willgive more information about the relationship between capital expenditureand future performance in support of: investors interested in companies with capital expenditures; and lenders on their potential return on investment and repayment of loan funds for businesses that use borrowings for investment purposes.

# Literature review and Hypothesis

# 1. Capital Expenditure

Capital expenditures refer to investments in long-term assets that provide benefits over multiple years. These investments primarilyfundthe replacement ofdeteriorating assets, improve the productivity of existing assets, or acquisition of new technology toenhance the company's operations. When a company incurs capital expenditures, it records the costs as assets in the noncurrent assets category, such as property, plant, equipment, or intangible assets.

When making investment decisions, management typically considers investing in projects with a present value of the net cash flows from the investment higher than the initial investment. This means that the project has a positive net present value, indicating that it should generate returns for the company. This approach helps management make informed decisions about which projects will likely provide the company with the most value. Thus, the company will be able to create stability for shareholders (Uwah & Asuquo, 2016). However, the return on investment from a project may not meet expectations. Such behavior may result through errors in estimating the time and size of the benefits obtained from the company's investment projects may occur. Such could result from changes impacting the investment project, such as changes in customer preferences and intense domestic and abroad competition(Echevarria, 1998).Further, as agency theory explains when agents act on behalf of the principal (the actual owner of the funds) there may be a conflict of interest because the agent may prioritize their benefits over those of the principal. This can result in investment decisions without considering a project's positive net present value. This is especially true when a company has excess cash and may choose to invest in projects with a negative net present value to benefit themselves, even though it may not be in the company's or its shareholders' best interest(Jensen, 1986).

Capital expenditures incurred in each period are essential data for investors to make decisions. This is because most investments take many years to mature, and the value of the investment is significant and can impact the company's future performance. It is crucial for investors to carefully monitor and track their capital expenditure to make informed decisions about their investments.

#### 2. Firm performance

The company results provide insight into whether or not it has achieved its goals. This information is crucial for management to use in improving the organization and is also vital for other stakeholders, such as investors, to make informed decisions. Many different metricsapply to measure a company's performance, depending on the specific context. These metrics can include financial indicators, such as profit or revenue, or non-financial indicators, such as customer satisfaction or employee engagement. By analyzing these metrics, managers and other stakeholders can better understand the company's strengths and weaknesses. They can use this information to make more informed decisions about how to move the organization forward. Previous studies measure the results of expenditure for investment, such as operating profit margins (Echevarria, 1998) and return on investment (ROI) (Jiang et al., 2006).

Similarly, the long-term value of a company can be measured using various metrics. These range from return on assets (ROA), economic value added (EVA), market value added (MVA) (Uwah, 2019), return on equity (ROE), and firm value (FV)(Salimah & Herliansyah, 2019). These measures typically assess the effectiveness of the investment, identify any areas for improvement, and inform decision-making about future investments.

Although there are various ways to measure the performance of an investment, ROA is most common for evaluating the expenditure results for investment (Jiang et al., 2006; Uwah, 2019; Vithessonthi, 2016). ROA measures the profitability of a company's assets, calculated by dividing its net income by its total assets. It is a critical metric for assessing an investment's long-term value and making informed decisions about resource allocation and risk management. This indicates that the business's assets are used efficiently to generate a good return on investment. On the other hand, if the ROA is low, it may suggest that the business is not utilizing its assets effectively or that the assets are not generating sufficient profits. Dividends are another financial measurement that reflects the profitability of a business's assets. They are a portion distribution of a company's profits to its shareholders. If a company can pay dividends at a steady rate, it indicates that the business's assets are generating sufficient profits. As such, dividends measure a business's performance and the return on investment for shareholders (Uwah, 2019).

# 3. The relationship between capital expenditures and firm performance

Capital expenditures refer to the costs incurred by a company to make investments expected to generate returns and increase the value of the company's assets. Capital expenditure signal a company's growth path and can be an important indicator of its financial health and futureperformance(Callen et al., 1996). If a company fails to make investments, the value of the company may decrease over time(Uwah & Asuquo, 2016). This can happen for various reasons, such as a lack of growth opportunities or a decline in the value of the company's existing assets. Deciding to invest in assets that generate returns over a long period is based on the idea that a business will consider investing in projects with a positive net present value (NPV). If the NPV is positive, it indicates that the investment will generate a higher return than the cost of the investment. This decision-making criterion reflects the relationship between current capital expenditure and the company's future profits (Jiang et al., 2006).

For example, Jiang et al. (2006)show evidence of a positive relationship between capital expenditure and future profits for Taiwanesecompanies in the industrial sector. Current profits were a significant predictor of future profits, and an increase in current profits was significantly related to an increase in future profits, even when the regression coefficient of capital expenditure was lower than that of current profits. This suggests that capital expenditure in the Taiwan sample played an essential role in predicting future profits and that companies with higher capital expenditure may be more likely to achieve higher future profits. However, it is important to note that the relationship between capital expenditure and future profits may vary depending on the specific circumstances of each company and the industry and region in which it operates.

Accordingly, other industry sector researchfound positive relationships between company capital expenditures and future profits. For example, Echevarria (1998) found that capital expenditure for industrial companies in the Fortune 500 have a positive relationship with profitability ratios from operations. This suggests that capital expenditure play a significant role in the profitability of industrial companies in the Fortune 500.Kim (2001) also found that capital expenditure positively affects future profits, with the effect increasing over time. This finding supports the idea that capital expenditure plays an important role in predicting future earnings for companies and

suggests that companies with higher capital expenditure may be more likely to achieve higher future profits. In addition, research has found that current profits and opening prices, as controlled variables, have a positive relationship with future profits.

Additionally, Uwah (2019) found that capital expenditure and the size of a company, as control variables, are significantly correlated with the long-term value of the company in the Nigerian stock exchange. However, it is essential to note that the study by Salimah and Herliansyah (2019) found no significant relationship between capital expenditures and the performance of listed companies in the Indonesian stock exchange. This discrepancy may be due to differences in the region of operation, industries sampled or sample sizes. Notwithstanding; it demonstrates that the relationship between capital expenditures and future profits is more complex than previously thought. To untangle such complexities, we turn to agency theory to assist in understanding the role of agents in company investment decision-making.

Although previous research lacks relational consistency, this study assumes that investing in assets with long-term benefits, as described through the investment decision-making literature, suggests that capital expenditure may positively impact the future performance of a business. Therefore, this study proposes the following hypothesis:

H1: Capital expenditure positively correlates with future firm performance among listed companies on the Thai stock exchange.

# 3. Research methodology

#### Sampling and data collection

The sample group in this study consists of 475 registered companies listed on the Thailand Stock Exchange, excluding companies in the financial sector. By excluding companies in the financial sector, the authors may be able to make more accurate comparisons and draw more meaningful conclusions about the accounting practices of the companies in the sample group. This is due to the fact that businesses in the financial sector, such as banks, insurance companies, and investment firms, are subject to a wide range of accounting rules and regulations that are designed to protect consumers and ensure the integrity of the financial system. These regulations are designed to ensure that financial sector businesses provide accurate and transparent financial information to investors, regulators, and the public. The data used in the analysis were collected from the Thomson ReutersDatastreamdatabase from 2000 through 2016, totaling 4,920 firm-year observations. The data used in this analysis is clean and with outliers removed.

It is worth noting that this research is quite old in 2023, so the economic situation and the regulations may have changed in the meantime. Therefore, the results of this study may not be directly applicable to the current economic conditions, and it is important to consider whether the findings are still relevant today. However, the time period of 2000-2016 in this research may have been chosen for a variety of reasons. This period may have been chosen because it is a historically significant time period for the Thai economy and the Thai Stock Exchange (SET), and the results of the study may be particularly relevant to understanding the financial performance of companies during that time. The time period of 2000-2016 selected for this research, which is three years after the economic recovery that was traumatized by the financial crisis in 1997. The crisis was a significant event in the Thai economy and had a major impact on the country's financial system and the performance of companies listed on the Thai Stock Exchange (SET). By selecting a time period that starts three years after the economic recovery, the researchers may be able to study how companies were able to recover from the crisis and how this recovery affected their capital expenditure and future performance. Additionally, the ending of 2016, three years before the Covid-19 crisis in 2019, allows the researchers a chance to analyze the data and prepare their findings before the Covid-19 crisis occurred, thus it would be less likely for the current crisis to influence the results and conclusions of the study.

#### Research model

The researchers used a model to test the relationship between capital expenditure and future firms:

$$\begin{split} & \mathrm{PERF}_{i,t} = \alpha_0 + \beta_1(\mathrm{CAPEX}_{i,t-1}) + \beta_2(\mathrm{SDROA}_{i,t-1}) + \beta_3(\mathrm{LNTA}_{i,t-1}) + \beta_4(\mathrm{LEV}_{i,t-1}) + \beta_5(\mathrm{CURRENT}_{i,t-1}) + \beta_6(\mathrm{OCFTA}_{i,t-1}) + \beta_7(\mathrm{SALESGROWTH}_{i,t-1}) + \beta_8(\mathrm{GPM}_{i,t-1}) + \beta_9(\mathrm{TBQ}_{i,t-1}) + \mathrm{FIRM}_{\mathrm{FE}} + \mathrm{YEAR}_{\mathrm{FE}} + \epsilon_{i,t}) + \beta_8(\mathrm{GPM}_{i,t-1}) + \beta_8(\mathrm{GPM}_{i,t-$$

where:

PERF is firm performance measured by ROA and DIVTA.

ROA is the rate of return on assets, measured as the ratio of earnings before interest and taxes (EBIT) to total assets.

DIVTA is the dividend, measured by the ratio of dividends to total assets.

CAPEX iscapital expenditure measured by CAPEXTS.

CAPEXTS is capital expenditure to revenues, measured as the ratio of capital expenditure to revenue for the past 1 year

SDROA is the firm's operational risk, measured by the moving average standard deviation3 years of ROA.

LNTA is the size of firm, measured by the natural logarithm of its total assets.

LEV is the financial risk of a firm, measured by the ratio of total liabilities to total assets.

CURRENT is the firm's liquidity, measured by the ratio of current assets to current liabilities.

OCFTA is a firm's cash flow as measured by net cash flow from operations to total assets.

SALESGROWTH is sales growth, measured by the natural logarithm of sales growth fromlast year.

GPM is gross profit margin, measured as the ratio of gross profit to sales.

TBQ is an investment opportunity measured by the exchange value of common shareholders' equity and the book value of liabilities to the book value of total assets (Tobin's Q).

FIRM\_FE is Firm Fixed Effect.

YEAR\_FE is the Year Fixed Effect.

 $\epsilon$  is the error in the estimation.

i is company 1, 2, 3...., n

t is year 1, 2, 3...., n

The independent variable in this study is capital expenditures (CAPEX), measured by capital expenditure per total revenue (CAPEXTS). The dependent variables are future firm performance (PERF), measured by return on assets (ROA) and dividends (DIVTA). This study also includes control variables expected to affect business performance in the model, including operational risk (SDROA), size of the firm (LNTA), financial risk (LEV), liquidity (CURRENT), cash flow (OCFTA), sales growth (SALESGROWTH), gross profit margin (GPM), and investment opportunities (TBQ) (Bushra & Mirza, 2015; Kathuo & Kimoro, 2017; Vithessonthi, 2016).The independent and control variables use lagged data from the previous year (t-1) for analysis.

# 4. Results

# Descriptive statistical analysis

Table 1 shows the results of statistical data analysis of the entirecompany sample with a dataset of 4,920 observation-years. The average capital expenditures, ROA, and dividends are 0.077, 0.072, and 0.028, respectively. Averages were only slightly greater than zero. Such could be a concern for investors, as it may indicate that these firms are not generating sufficient investment returns.

Variable	Mean	Median	Min.	Max.	S.D.
ROA	0.072	0.074	-0.102	0.227	0.081
DIVTA	0.028	0.018	0.000	0.115	0.033
CAPEXTS	0.077	0.040	0.003	0.358	0.094
SDROA	4.381	2.862	0.485	16.734	4.260
LNTA	15.043	14.809	13.040	18.042	1.387

#### Table 1. Descriptive statistical analysis

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LEV	0.247	0.230	0.000	0.628	0.202
CURRENT	2.189	1.507	0.462	7.444	1.811
CFOTA	0.077	0.078	-0.110	0.258	0.096
SALESGROWTH	0.051	0.055	-0.394	0.482	0.208
GPM	0.217	0.198	0.011	0.508	0.138
TBQ	1.114	0.911	0.416	2.844	0.634

Table 2 shows the test results for the relationship between variables for a sample of 4,920 data sets. It shows the relationship between the independent variables is at a low level, with the highest Pearson correlation coefficient between the firm's liquidity and financial risk being -0.508 (p<0.01). Therefore, there is no problem of multicollinearity between the independent variables.No multicollinearity suggests that it is likely that the results of the statistical analysis are reliable and accurate for interpretation.

Table 2. Pearson correlations among variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1. ROA	1										
2. DIVTA	0.613***	1									
3. CAPEXTS	0.030**	-0.008	1								
4. SDROA	-0.240***	-0.136***	-0.013	1							
5. LNTA	0.118***	0.010	0.171***	-0.155***	1						
6. LEV	-0.255***	-0.384***	0.074***	0.041***	0.287***	1					
7. CURRENT	0.127***	0.196***	-0.093***	0.012	-0.207***	-0.508***	1				
8. CFOTA	0.544***	0.489***	0.042***	-0.142***	0.021	-0.306***	0.076***	1			
9. SALESGRO WTH	0.271***	0.019	0.198***	-0.072***	0.113***	0.050***	-0.090***	0.014	1		
10. GPM	0.432***	0.322***	0.250***	-0.159***	0.047***	-0.130***	0.145***	0.276***	0.131***	1	
11. TBQ	0.355***	0.445***	0.135***	0.089***	0.054***	-0.058***	0.013	0.241***	0.077***	0.277***	1

Note: \*\*\*p<0.01, \*\*p<0.05

# Results of multiple regression analysis

The results of the Fixed Effects Method analysis in Table 3 show a positive relationship between capital expenditure and the business's future performance across the board. That is for all selected companies based on a sample of 4,920 data sets. Columns (1) and (2) show that capital expenditure (CAPEXTS (-1)) is negatively correlated with future performance as measured by the return on assets and dividends, respectively. This negative relationship is statistically significant (p<0.01). The slope coefficients for this relationship are -0.043 and -0.015, respectively. Such results show that higher capital expenditure for SET companies is associated with lower future returns on assets and dividends. This is an important finding that contradicts general business principles andthe assumptions behind Hypothesis 1. However, we note that this combined set relationship is not necessarily causal and may reflect influence from other factors not included in the analysis – such as the influence of agents. Additionally, the magnitude of the relationship, as indicated by the slope coefficients, may not be the same across individual companies and industries.

The analysis of the control variables found that operational risk has a positive relationship with future firm performance measured by dividends (p<0.01). The size of the firm has a negative relationship with performance

measured by return on assets (p<0.01) but a positive relationship with dividends (p<0.01). The financial risk of the company is negatively significant, with performance measured by return on assets (p<0.05) and dividends (p<0.01). The company's liquidity has a negative relationship with the performance of the business measured by return on assets (p<0.01). Cash flow, sales growth, gross profit margin, and investment opportunities have a positive relationship with the business performance measured by both return on assets and dividends (p<0.01).

After considering the adjusted  $R^2$  value, columns 1 and 2 show 0.571 and 0.714, respectively. This shows that the model has a prediction ability of 57% and 71%, respectively.

	ROA (1)	DIVTA (2)
	Coefficient	Coefficient
Constant	0.178***	-0.028
CAPEXTS(-1)	-0.043***	-0.015***
SDROA(-1)	0.000	0.000***
LNTA(-1)	-0.011***	0.003***
LEV(-1)	-0.020**	-0.045***
CURRENT(-1)	-0.003***	0.000
CFOTA(-1)	0.136***	0.043***
SALESGROWTH(-1)	0.029***	0.009***
GPM(-1)	0.199***	0.051***
TBQ(-1)	0.018***	0.011***
Firm-fixed effects	Yes	Yes
Year-fixed effects	Yes	Yes
Adjusted R <sup>2</sup>	0.571	0.714
F-statistic	14.129***	25.696***
Firms included	475	475
Firms-year observations	4,920	4,920

# Table 3. Capital expenditures and future firm performance

Note: Variable descriptions are shown in Appendix A \*\*\*p<0.01, \*\*p<0.05

Investors shouldconsider these findings when making decisions about Thai future firm performance. This analysis suggests that the firm's liquidity, cash flow, sales growth, gross profit margin, and investment opportunities may be essential factors in determining its performance. Furthermore, capital expenditure performances the future performance of a business, which reflects through the return on assets. When a company invests in assets that have a more extended period of benefit, the return on investment in the early stages may not be sufficient (Kim, 2001). This is due to external factors that may affect the benefits expected from the company's investment project in terms of time and size (Echevarria, 1998). As a business records increasing depreciation as expenses, it may result in decreased profits and a decline in the proportion of returns from assets. Capital expenditure also affects future firm performance, which reflects individends. This may be a result of the company's decreasing profitability, which has reduced dividend payments.

Such findingssuggest agency theory at play, meaning that manager/management investment decisions may prioritize own benefits over those of shareholders by choosing to invest in projects with a negative NPV, which may negatively impact the business's future performance(Jensen, 1986). Subsequently, the study contradicts the idea that management will always invest in projects with a positive NPV, assuming such would increase future company profits (Jiang et al., 2006; Kim, 2001; Uwah, 2019).

Additional analysis results

In attempting to dissect the result above, this section tests a subset of the original sample – large firms only. Qualifying companies – those with above-average size – produced a1,800 observed-year data set. The results, shown in Table 4: Column (1), suggest capital expenditure (CAPEXTS(-1))has a negative correlation with the return on assets with a significant level (p<0.01), with a coefficient value of -0.058. This research suggests that in large firms, an increase in capital expenditure (CAPEXTS(-1)) does not significantly impact future firm performance as measured by return on assets (p>0.01). It may be that these firms have the sufficient financial strength to continue paying dividends despite higher capital expenditure. However, the research does not find a significant relationship between capital expenditure and future firm performance.

	ROA (1)	DIVTA (2)	
	Coefficient	Coefficient	
Constant	0.178**	0.024	
CAPEXTS(-1)	-0.058***	-0.010	
SDROA(-1)	0.000	0.000***	
LNTA(-1)	-0.010	-0.001	
LEV(-1)	-0.010	-0.038***	
CURRENT(-1)	-0.003**	0.000	
CFOTA(-1)	0.155***	0.061***	
SALESGROWTH(-1)	0.018**	0.013***	
GPM(-1)	0.188***	0.053***	
TBQ(-1)	0.015***	0.009***	
Firm-fixed effects	Yes	Yes	
Year-fixed effects	Yes	Yes	
Adjusted R <sup>2</sup>	0.570	0.728	
F-statistic	6.898***	12.907***	
Firms included	381	381	
Firms-year observations	1,800	1,800	

# Table 4. Capital expenditures and future performance of large firms

Note: \*\*\*p<0.01, \*\*p<0.05

# 5. Discussion and recommendations

This research explored the relationship between capital expenditure and the future firm performance of registered companies in the Thai stock exchange. Atotal sample of 475 companies provided 4,920 firm-year observationsbetween 2000-2016, The study found that firm capital expenditure had a significant negative impact on its future firm performance. Both the return on assets and dividends were used to measure performance. In addition, the negative correlation was equally evident among a subset of large firms. That capital expenditure negatively impacted future performance measured by the return on assets. In contrast, evidence from the Albanian construction sector between 2008 and 2015 revealed that capital expenditures and leverage ratio are statistically significant and positively connected with the firm's financial performance based on data gathered from 30 enterprises (Taipi & Ballkoci, 2017). These results suggest that investments in capital expenditure and leverage ratio can positively influence a firm's financial performance. Therefore, it is recommended that Albanian construction firms should consider increasing their capital expenditure and leverage ratio in order to improve their financial performance.

It is crucial to highlight that the study's findings may not apply to all businesses in all industries and are merely statistically significant. The findings of a study conducted in 60 Serbian manufacturing companies from 2004 to

2016 show that capital investments affect both a company's short- and long-term profitability(Grozdic et al., 2020). Investments in capital have a negative short-term impact on performance. This is due to the fact that the cost of capital investments can be high and can impact a company's short-term profitability. Additionally, the return on investment (ROI) from capital investments may not be realized immediately, leading to a temporary decline in profitability. In summary, capital investments can have a negative impact on short-term profitability due to the high cost of the investments and the lag between the investment and the return. However, in the long-term, these investments can lead to increased efficiency, reduced costs, improved product or service offerings and increased revenue, ultimately leading to long-term profitability.

Thus, this research provides novel information about capital expenditure and the future performance of Thai stock exchange-registered companies. It adds theoretical value by considering factors that may affect the initial success of investment projects, specifically the agents' potential impact. Applying agency theory in the context of investment decisions invokes the idea that management may choose to invest in projects with a negative NPV. This refers to projects that expect to generate cash flows less than the amount financed in the project. In this case, the management may prioritize their benefits, such as increased salary or bonuses, over the interests of the shareholders, who may expect the company to invest in projects that generate positive NPVs and advance the company's future profits.

Subsequently, investors can use the findings to make informed investment decisions in registered companies in the Thai stock exchange. Agency theory can help investors and analysts better understand the potential risks and challenges associated with investment projects, by considering the potential for agency problems and other factors that may affect the project's success. By understanding these risks, investors and analysts can make more informed decisions about whether or not to invest in a particular project and take steps to mitigate or manage those risks.

In addition, lenders can use this information to consider lending to registered companies listed on the Thai stock exchange.By viewing the potential for agency problems and other factors that may affect the success of an investment project, lenders can also make more informed decisions. This is particularly important for lenders considering lending to registered companies listed on the Thai stock exchange, as these companies may have more complex structures and potential agency problems. By using agency theory to understand the potential risks and challenges associated with these types of investments, lenders can better assess the likelihood of success for the project and thus make informed lending decisions.

It is difficult to determine the specific reasons for why Thailand may be showing different trends in the relationship between capital expenditure and future firm performance compared to other countries based on the information provided. There could be a variety of factors that could contribute to these differences, including differences in the economic and regulatory environment, the specific industries and sectors that are dominant in Thailand. Further, the cultural and institutional context in which companies operate can also impact the way they make investment decisions and the outcomes of those decisions. For example, the values, norms, and expectations of stakeholders such as shareholders, employees, and customers may differ between countries, which could affect the returns on investment projects.

# 6. Limitations and suggestions for future research

It is important to note that this research is based on a specific sample of companies and may not represent the entire Thai stock exchange. Therefore, companies and investors needto consider other relevant information when making decisions - such as the company's financial performance, exchange conditions, and potential risks. It is also important to diversify investments and carefully evaluate any investment opportunity's potential risks and rewards. Additionally, suppose the scope of the study is expanded, such as to the entire SET or the Association of Southeast Asian Nations (ASEAN) region. In that case, different findings may result from such enquiry.

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